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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,871	03/16/2004	Sung-hee Hwang	1793.1218	1566
49455 7590 11/13/2008 STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005				
EXAMINER				
ORTIZ CRIADO, JORGE L				
ART UNIT		PAPER NUMBER		
2627				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/800,871

**Applicant(s)**

HWANG ET AL.

**Examiner**

JORGE L. ORTIZ CRIADO

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 22-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6-7, 13-14 and 20-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims recites "contiguously recording the temporary defect information", and the examiner cannot ascertain where in the specification support for this limitation is found. hence the limitation is considered new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language “a multiple ( $N=1,2,\dots$ )” and “( $K \times N + N$ ) as for example in claims 7, 13, 14” renders the claim indefinite because it is unclear whether the limitation(s) in parentheses in the phrase are part of the claimed invention.

And renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "..."), thereby rendering the scope of the claim(s) unascertainable.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 22 is drawn to a computer readable medium having stored thereon a computer program, where the computer readable medium as defined in the specification on paragraph [0091] can be a signal or carrier wave or transmission over the internet; therefore, fail(s) to fall within a statutory category of invention.

A claim directed to a computer program itself or signal or carrier wave is non-statutory because it is not:

A process occurring as a result of executing the program, or

A machine programmed to operate in accordance with the program, or

A manufacture structurally and functionally interconnected with the program in a manner which enable the program to act as a computer component and realize its functionality, or

A composition of matter.

See MPEP § 2106.01. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

As outlined above, the examiner is directing applicant's attention to the pertinent portion of the specification where the phrase "computer readable medium" is defined as being a non-tangible medium.

The claims should recite the phrase from the specification that is limited to a "tangible computer readable medium". The applicant might use the phrase "computer storage medium" in the specification and define such as limited to a tangible computer readable medium, e.g., hard disk drive, EPROM, CD-ROM. The applicant might explicitly use the phrase "tangible computer readable medium" in the specification. The claims could then be amended to recite "computer storage medium" or "tangible computer readable medium".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by park et al. U.S. Pat. No. 7,289,404.

Regarding claim 1, Park et al. discloses a recording method, comprising:  
recording temporary defect information to an optical recording medium, the temporary defect information having an accumulated size equal to a multiple (N-1,2, ...) of a predetermined size (K) (size that takes to fulfill TDMA1, Fig. 8), and

separately recording subsequent temporary defect information (TDMA2) on the optical recording medium, the subsequent temporary defect information having the accumulated size less than the predetermined size (K) and excluding the temporary defect information having the accumulated size equal to  $K \times N$ . (see Fig. 8; Fig. 13).

Regarding claim 2, Park et al. discloses recording size information of the temporary defect information having the accumulated size equal to  $K \times N$ , information indicating a location of the temporary defect information (SDL header) having the accumulated size equal to  $K \times N$ , and information indicating a location of the subsequent temporary defect information excluding the temporary defect information having the size equal to  $K \times N$  on the optical recording medium (Figs. 12, 13).

Regarding claim 3, Park et al. discloses wherein the optical recording medium is a write once medium. (see col. 2 lines 13-29).

Regarding claims 4 and 5, recites similar limitations to the above treated in claims 1 and 2 and met by Park et al. reference for the same reasons of anticipation.

Regarding claim 6, Ito et al. discloses if a size of the subsequent temporary defect information reaches the predetermined size K, contiguously recording the temporary defect information having the size equal to  $K \times N$  and the subsequent temporary defect information excluding the temporary defect information having the accumulated size equal to  $K \times N$ , to at least

one portion of the optical recording medium (see Figs. 86 and 8; contiguously performed to TDMA3, TDMA4 etc.)

Regarding claim 7, discloses recording size information ( $K \times N + K$ ) of the “contiguously” recorded temporary defect information and information indicating a location of the continuously recorded temporary defect information to the optical recording medium (See Fig. 12; contiguously for TDMA 3, TDma4 etc.).

Regarding claims 8-14, Apparatus claims 8-14 are drawn to the apparatus corresponding to the method of using same as claimed in claims 1-7, and are rejected for the same reasons of anticipation as used above.

Regarding claims 15-21, recording medium claims 15-21 are drawn to the recording medium recorded using the corresponding method and apparatus as claimed in claims 1-7; and 8-14, and are rejected for the same reasons of anticipation as used above.

Regarding claim 22, claim 22 is drawn to the program being used for performing the method performed by the apparatus of claim 12, and further reciting the limitations of using the temporary defect information recorded, which are met by Ito et al reference. Hence, is rejected for the same reasons of anticipation as used above.



***Response to Arguments***

Applicant's arguments with respect to claim have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JORGE L. ORTIZ CRIADO whose telephone number is (571)272-7624. The examiner can normally be reached on Mon.-Fri 10:00 am- 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge L Ortiz-Criado/  
Primary Examiner, Art Unit 2627